

V	Final Report
	Revised Report
Re	port Date:

03-Apr-18 11:30

Laboratory Report SC45272

Gulf Oil L.P. 281 Eastern Avenue Chelsea, MA 02150 Attn: Andrew P. Adams

Project: Gulf Terminal - Chelsea, MA

Project #: Gulf Chelsea

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.

All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110 Connecticut # PH-0777 Florida # E87936 Maine # MA138 New Hampshire # 2972/2538 New Jersey # MA011 New York # 11393 Pennsylvania # 68-04426/68-02924 Rhode Island # LAO00348 USDA # P330-15-00375 Vermont # VT-11393



Authorized by:

Dawn Wojcik Laboratory Director

Jawn & Woscik

Eurofins Spectrum Analytical holds primary certification in the State of Massachusetts for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of Massachusetts does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.

Please note that this report contains 8 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Eurofins Spectrum Analytical, Inc.

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Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

Sample Summary

Work Order: SC45272

Project: Gulf Terminal - Chelsea, MA

Project Number: Gulf Chelsea

Laboratory IDClient Sample IDMatrixDate SampledDate ReceivedSC45272-01Outfall 003Surface Water29-Mar-18 13:4030-Mar-18 17:03

CASE NARRATIVE:

Data has been reported to the RDL. This report excludes estimated concentrations detected below the RDL and above the MDL (J-Flag).

All non-detects and all results below the reporting limit are reported as "<" (less than) the reporting limit in this report.

The samples were received 1.2 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of \pm 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group. If method or program required MS/MSD/Dup were not performed, sufficient sample was not provided to the laboratory.

There is no relevant protocol-specific QC and/or performance standards non-conformances to report.

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Sample Acceptance Check Form

Client:

Gulf Oil L.P.

Project:	Gulf Terminal - Chelsea, MA / Gulf Chelsea				
Work Order:	SC45272				
Sample(s) received on:	3/30/2018				
The following outlines th	ne condition of samples for the attached Chain of Custody upon receipt.				
		<u>Yes</u>	<u>No</u>	<u>N/A</u>	
Were custody sea	als present?		\checkmark		
Were custody sea	als intact?			✓	
Were samples re	Were samples received at a temperature of ≤ 6 °C?				
Were samples re	frigerated upon transfer to laboratory representative?	\checkmark			
Were sample cor	ntainers received intact?	\checkmark			
	operly labeled (labels affixed to sample containers and include sample ID, site project number and the collection date)?	\checkmark			
Were samples ac	companied by a Chain of Custody document?	\checkmark			
include sample I	ustody document include proper, full, and complete documentation, which shall D, site location, and/or project number, date and time of collection, collector's name, e, sample matrix and any special remarks concerning the sample?	V			
Did sample cont	ainer labels agree with Chain of Custody document?	\checkmark			
Were samples re	ceived within method-specific holding times?	abla	П		

Summary of Hits

Lab ID: SC45272-01 Client ID: Outfall 003

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Total Suspended Solids	5.8		0.5	mg/l	SM2540D (11)

Please note that because there are no reporting limits associated with hazardous waste characterizations or micro analyses, this summary does not include hits from these analyses if included in this work order.

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Sample Identification Outfall 003 SC45272-01				Project # Chelsea		<u>Matrix</u> Surface Wa	·	ection Date 9-Mar-18 13	<u>Re</u> 30-1			
CAS No. Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
General Chemistry Parameters Total Suspended Solids												

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General Chemistry Parameters - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SM2540D (11)										
Batch 1804343 - General Preparation										
Blank (1804343-BLK1)					Pre	epared: 31-Ma	ar-18 An	alyzed: 03-A	pr-18	
Total Suspended Solids	< 0.5		mg/l	0.5						
LCS (1804343-BS1)					Pre	epared: 31-Ma	ar-18 An	alyzed: 03-A	pr-18	
Total Suspended Solids	96.0		mg/l	10.0	100		96	90-110		

Notes and Definitions

dry Sample results reported on a dry weight basis

NR Not Reported

RPD Relative Percent Difference

<u>Laboratory Control Sample (LCS)</u>: A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

<u>Matrix Spike</u>: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

<u>Method Blank</u>: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

<u>Surrogate</u>: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

<u>Continuing Calibration Verification:</u> The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

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	100		h	Reling		•					O F	Dr ron 1	Lab ID:	G=	X1=	0=Oil SO=Soil	DW =Drinking Water	F=Field Filtered 1=Ni 7=CH3OH 8=NaHSO ₄	Project Mgr:	Telephone #:		Report To:		eurofins		
	MA	miller !	CM	elinquished by	1			*			Coltan oos	- 19	Sample ID:	Grab	X2=	SL=Sludge A=Indoor/Ambient Air	GW=Groundwater (SW=St	1=Na ₂ S2O ₃ 2=HCl 3=H ₂ SO ₄ SO ₄ 9=Deionized Water 10=H ₃ PO ₄	A. Addins	Chelsen MA 0215	281 Eastern Auc	ndrew Adams	Spectrum Analytical	Sni		
		1.61	Athen Kun	Beceives by:							5-21-18 1370		Date: Time:	C=Compsite	X3=	ent Air SG=Soil Gas	SW=Surface Water	4=HNO ₃ 5=NaOH 11= //ON/E	P.O No.:	150		Invoice To:	nalytical	CHAIN	I	
	3/2/18/19	3-30-18 1	3-29-18 /4	Date:							G	S &	# of 1	vOA Ambe	Vials r Glas Glass	S	Containers	6=Ascorbic Acid 12=	Quote #:	wellesty M	So william.	Christopher 6	Page of	AIN OF CUSTODY R		
IRID#	15 Confected Con	2 Gorecond Factor					•				•		-	Plastic TS	55		īrs	List P		MA .02481-3705	Street Suite 400	11/1		Y RECORD		
☐ Ambient ☐ Iced ★ Refrigerated	Condition upon receipt: Custody Seals:	report to Dienniter	E-mail to	EDD format:								8100					Analysis	List Preservative Code below:		Location: 281 I	Site Name: Cult	Project No:	All TATs s Min. 24-h Samples di	X Rush TAT	☐ Standard	25475
erated 🗌 DI VOA Frozen 📄 Soil Jar Frozen	eals: Present Intact Broken	at Kinspaccon	se gulfail.com, cgillegulf										C Other: State-specific reporting standards:	N Reduced N Full*		Standard No QC	MA DEP MCP CAM Report? Yes No	QA/QC Reporting Notes: * additional charges may appply		A TEKSONCLOS Marinkouse MA	Chelsia Termina	Juli Chelsen	All TATs subject to laboratory approval Min. 24-hr notification needed for rushes Samples disposed after 30 days unless otherwise instructed.	X Rush TAT Date Needed: 2 dece	Special Handling: Standard TAT - 7 to 10 business days	78. RV

Batch Summary

<u>1804343</u>

<u>General Chemistry Parameters</u> 1804343-BLK1 1804343-BS1 SC45272-01 (Outfall 003)